Z. Säugetierkunde **63** (1998) 319–320
© 1998 Gustav Fischer

ZEITSCHRIFT FÜR SÄUGETIERKUNDE
INTERNATIONAL JOURNAL OF MAMMALIAN BIOLOGY

Buchbesprechungen

HEPTNER, V. G.; MEAD, J. G. (eds.) (1996): **Mammals of the Soviet Union**, Vol. II, Part 3. Pinnipeds and toothed whales, Pinnipedia and Odontoceti. Lebanon, New Hampshire: Science Publishers 1996. 995 pp., numerous black and white photographs and maps, some colour plates, hard cover. Price $ 225,–. ISBN 1-886106-67-3.

The anachronistic title of the English version of the book originates from the Russian edition, which was published in Moscow in 1976. The present volume has been translated for the Smithsonian Institution Libraries by P. M. RAO of the Amerind Publishing Company of New Delhi, India. Because of the diversity of participating institutions, it is difficult for the reader to cite the book correctly: The original Russian series of the three-volume "Mammals of the Soviet Union" was edited by V. G. HEPTNER and N. P. NAUMOV, the Russian version of the present volume on marine mammals was edited by the late V. G. HEPTNER alone; in the United States J. G. MEAD was the "Scientific Editor", and V. S. KOTHEKAR was active as "General Editor" in India.

In spite of these more technical problems, the reader and user of this book has to agree with statements in the forword to the English edition: "One of the values of this translated volume is to give English readers an insight into another philosophical system that devoted nearly a century to the studies of marine mammals. This work is important because it has an abundance of data that were taken from commercial harvest, particularly from small cetaceans, that have been generally unavailable to the English-speaking community. A monograph of this magnitude, with such an extensive bibliography, serves as an excellent entré into the Russian literature."

Generally speaking, the text is rather broad and sometimes even wordy with a slight tendency towards old-fashioned style, but the wealth of information presented from Russian sources is not easily available elsewhere to the western reader. In the text detailed information on the biology of the walrus, of one fur seal species, two species of sea lions and ten seals, as well as rich information on 30 species of toothed whales can be found.

The book covers an extremely wide geographical range, including species from the waters surrounding the northern, western and eastern shores of the Palaearctic, as well as describing two species from landlocked bodies of water, namely *Phoca caspica*, the Caspian seal, and *P. sibirica*, the Baikal seal. Both for the pinnipeds and for the cetaceans in general, a short taxonomic introduction is given, including an identification key to the Pinnipedia and a key to the cetacean suborder Odontoceti or toothed whales. Each considered family is introduced with a short diagnosis. Some general information on each considered genus is given, as well as a documentation of synonyms of species names. Thereafter a diagnosis and a detailed description of the species follows. Body measurements, external characters, and data on the skeleton are given, followed by a section on the geographic distribution of the species with an account on the geographic range in the USSR and a subsequent description of the range outside the Soviet Union. In those cases where geographical variations occur within a species, they are described in a separate section.

The main part of the chapter on each species deals with its biology. The population as a whole is characterized, data on food and daily activity, on behaviour, on migrations and their seasonality, on ontogenetic development and on growth, as well as on population dynamics are given and the field characteristics of the species are described. Information is sometimes compiled in tables. A section on the species' economic importance concludes each chapter. Maps and line drawings are generally clear and easy to read, but it has to be mentioned that the quality of half-tone illustrations is not good; very often they lack good contrast and are printed too dark.

The bibliography is 94 pages long! It is subdivided into Russian language sources and those in other languages. An index of seven pages lists the names of considered species.

P. LANGER, Gießen

KINGDON, J.: **The Kingdon field guide to African mammals.** London: Academic Press 1997. Paperback 465 pp., numerous coulour and b & w figures, many tables and maps. £ 29.95. ISBN 0-12-408355-2.

At first glance this field guide is a beautiful and impressive work not only due to its colour illustrations that present the habitus of African mammals – in many cases even those inhabiting Northern Africa – but also by virtue of illustrations taken from KINGDON's series of books on East African mammals. However, as a desktop reference or as a field guide there are also considerable drawbacks that will make it difficult to use this book for these purposes: In those cases where the name of a species is known and further information is sought, an alphabetic index of scientific species or of English names is missing. The reader has to refer to the "Checklist of Species", which gives the two versions of the names in taxonomic, but not in alphabetical order. When the reader chooses to look up the description of a species, another problem may arise: The pagination is missing in many cases! For example, on the pages dealing with baboons (*Papio* spec.), the numbers of pages 34, 35 and 36 are not printed. Two other randomly chosen examples where pagination cannot be found are: Page 345 and pages 374 through 377 (four pages in sequence!). This is most surprising for a book produced by one of the world's most eminent publishing houses of scientific material!

Magnifying glasses are necessary to identify legends on maps and on some illustrations. For example, the explanatory text on the illustration depicting ,"Tooth succession in the African elephant" (page 303) is practically illegible because of considerable size reduction of the printed figure.

The reviewer feels deeply sorry for the author, who was let down by the publisher! JONATHAN KINGDON wrote a brilliant text, he presents many details on 1 150 African mammal species, especially on their ecology and their evolutionary relationships and makes information available that can generally not be found in a book of this size. May a new edition be produced by a more conscientious editorial team!

P. LANGER, Giessen

DEGEN, A. A.: **Ecophysiology of small desert mammals.** Berlin: Springer-Verlag 1997. Hardcover 296 pp., 102 figs., 56 tabs. DM 198,–, US$ 149,50. ISBN 3-540 59259-8.

In the series "Adaptations of Desert Organisms" this volume deals with the physiological diversity in relation to desert environments inhabited by small mammals weighing up to 5 kg. The author, working in the Negev in Israel, starts his book with clear and precise definitions, referring to all nouns and adjectives making up the title of his book. This introductory chapter is followed by a section, in which the author defines deserts, describes their formation and distribution on the globe and in addition deals with the types of soils that can be found. With great pleasure the reader appreciates this helpful introduction and can only express the hope that more authors of scientific publications might follow this approach!

The subsequent sections address physiological problems and emphasize their ecological implications: Body size and allometry, body temperature and heat transfer, behavioural adaptations, aspects of water balance as well as of energy requirements and, finally, reproduction. Respiratory or sensory physiology are not considered in this book, nor are endocrinological aspects. However, this does not at all diminish the value of this book. A publication such as the present one has to rely heavily on data published in the literature and small mistakes can thus be overlooked. For example, it is highly doubtful that energy loss via combustible gases – mainly methane – "could be considered to be zero in monogastric animals" (page 163). On page 170 the author mentions herbivores that use segments of the large intestine as fermentation chambers, which in many cases also means methane production.

The book is illustrated by a diversity of line drawings – mostly diagrams – and many tables. According to the most impressive amount of data referred to in this book, the list of references encompasses 29 pages! A subject index of five pages concludes this very informative book, which not only presents a remarkable review of ecophysiological aspects of small mammals inhabiting deserts, but which can also be used as a very thorough introductive textbook!

P. LANGER, Giessen